

BOOK REVIEW

RONALD M. LANNER. 2007. **The Bristlecone Book: A Natural History of the World's Oldest Trees.** (ISBN 0-87842-538-1, pbk.). Mountain Press Publishing Company, P.O. Box 2399, Missoula, Montana 59806, U.S.A. (**Orders:** www.mountain-press.com, 800-234-5308). \$12.00, 118 pp., color illustrations, 6" x 9".

Ronald M. Lanner is a native of Brooklyn, New York, whose teenage interest in natural history led him to become a forester. He was the editor of the *Western Journal of Applied Forestry* for its first eleven years. Now retired, he lives with his wife among the tall ponderosa pines of Placerville, California, where he is an emeritus visiting scientist at the Institute of Forest Genetics. It was at the Institute where he was employed early in his career, and where he developed his lifelong admiration for coniferous trees. His major research interests have included natural hybridization in pines, effects of aging on trees, bud development in pines, and the ecological and evolutionary effects of mutualisms of birds and pines.

His most recent book is *The Bristlecone Book: A Natural History of the World's Oldest Trees* (2007), which was preceded by *Conifers of California* (1999), *Made For Each Other: A Symbiosis of Birds and Pines* (1996), *Autumn Leaves: A Guide to the Fall Colors of the Northwoods* (1990), *Trees of the Great Basin: A Natural History* (1984), and *The Piñon Pine: A Natural and Cultural History* (1981).

Professor Lanner has written the first natural history of the bristlecone and foxtail pines of the western United States, trees that thrive in a harsh environment and live thousands of years. The essence of his book treats these trees as living organisms in their own right and brings together for the first time the captivating facts about bristlecone and foxtail pines, with a special focus on Great Basin Bristlecone Pine, the oldest tree species on earth.

I have read about these wonderful trees, especially their importance in carbon dating and "the tree ring calibration curve", but I admit that I did not think much about the living trees themselves. How old can they really be? How do they escape their enemies? How do they deal with soil erosion in the cold, windswept peaks of America's Mountain West? What characteristics are naturally selected to prolong life?

In the first chapter, Lanner describes three cousins: Great Basin Bristlecone Pines, Rocky Mountain Bristlecone Pines, and Foxtail Pines. In the next chapter, he dissects the pines and describes what they are made of. His photographs are well chosen to illustrate the text. The third chapter is devoted to the life cycle of these pines, and the fourth chapter is devoted to various shapes and forms. He describes threats to these trees in the fifth chapter, including global warming, forest fires, bark beetles, and White Pine Blister Rust. The final chapter is devoted to a discussion of what makes these trees unique: their great age, including recorded ages of living and dead trees and the secret of longevity.

There is an excellent bibliography, a very helpful glossary, and an index. This book will make a good addition to any public or college library.—Gary L. Jennings, *Botanical Research Institute of Texas, 500 East 4th Street, Fort Worth, Texas 76102-4025, U.S.A.*